OPIATE NARCOTICS

Opiate narcotics generally include opium and drugs derived from the oriental poppy (papaver somniferum). Opiate narcotics can also refer to certain synthetic chemicals that have a morphine-like action. Examples of narcotics include meperidine (Demerol), oxycodone (Percodan), and methadone.

CHARACTERISTICS

The opiates have been used for pleasure and medicine since prehistoric times. Eating opium has been known in Asia for thousands of years. During the Civil War, morphine, the major active constituent of opium, was isolated in the 19th century and was widely used in the injectable form to treat pain . It sometimes produced a dependence called “Army Disease.”

When heroin was first introduced at the end of the 19th century, it was thought to be a cure for opium and morphine dependence. Heroin is often referred to as H, smack, scag, horse, or jazz. Methadone, a fully synthetic narcotic, has become important in the management of opiate narcotic dependence. However, it can also cause physical dependence on its own and is widely abused. Heroin is usually taken subcutaneously (skin popping) or intravenously (mainlining). The heroin powder is also sometimes sniffed (snorted) or “dusted” on other substances, such as marijuana. More recently, heroin has been “cooked” into a form that is smokeable — not unlike making crack cocaine from powdered cocaine. Methadone is commonly taken by mouth (tablets or liquid), though it is available in injectable form.

EFFECTS

Smoking and intravenous injection of opiate narcotics produces the most rapid and intense effects. Upon absorption, the drugs stimulate the brain, then depress the activity of the central nervous system. The duration and intensity of the effects depend upon the size and potency of the dose as well as the route of administration. A usual dose may last for 2 to 6 hours or more. The effects of methadone and other synthetics often last much longer.

Initially the user feels a “rush” (surge of pleasure) followed by the feeling of contentment and detachment from the world. With moderately high doses the body feels warm, the arms and legs heavy, and the mouth dry. The user nods off and on — alternately waking and drowsing. Often a dream-like state occurs. Some heroin users describe their drug reactions in near ecstatic, even sexual, terms.

The effects of the opiates are often described as unpleasant, with users noting nausea and vomiting that frequently occur during the high. Drowsiness, dizziness, inability to concentrate, and mental clouding, including apathy and lethargy, are also commonly noted.

The physiological response to larger doses usually includes reduced breathing and heart activity, constriction of the pupils, and reduction of visual acuity. Itching, skin rash, warming of the skin, increased perspiration, constipation, nausea, and (sometimes) vomiting also occur.

As doses get higher, the effects become more acute. Insensibility and unconsciousness sometimes occur as the doses become stronger. With very high doses, the user may experience

coma, shock, respiratory arrest, even death. Many of these physiological problems experienced by narcotic users have to do with the circumstances of illicit use such as adulterated or diluted street samples, unsterile and shared needles, and an unhygienic environment.

Some common problems reported by addicts include hepatitis, tetanus, heart and lung abnormalities, scarred veins (track marks), skin infections, ulcers, and abscesses. Serum hepatitis is considered an indicator of heroin use.

Serious physical damage may be caused by the intravenous injection of contaminants that are sometimes used to “cut” or dilute the heroin. Talcum or chalk are often used and can cause physical damage when injected.

Mixtures of cocaine and heroin are often sold in the streets as “speedballs.” Cocaine users may use heroin to take the edge off an extreme cocaine high. Cocaine is also popular among methadone users because cocaine will exert its stimulant action even in the presence of opiates.

Opiate narcotics may produce considerable psychological and physical dependency rapidly. The degree of physical dependence, as reflected by the intensity of the withdrawal syndrome, is determined by the quantity, frequency, and duration of use. With low doses or intermittent use, the withdrawal symptoms resemble the symptoms of the flu: uneasiness, tears, and runny nose. Withdrawal after heavy chronic use results in severe and painful effects that resemble those associated with alcohol and barbiturate withdrawal. With morphine or heroin, the withdrawal syndrome

usually appears 6 to 12 hours after the drug was last taken; it peaks at 26 to 27 hours; and functional recovery usually occurs within about a week. Complete physical recovery may take 6 months or longer. With methadone, the symptoms are similar, but at equivalent doses, its symptoms are less severe.

Chronic use of heroin by pregnant women has been shown to result in a variety of obstetrical complications. Babies born to addicted mothers may be born addicted and have lower birth weights.

Babies born to mothers stabilized on methadone during pregnancy also tend to have lower birth weights and experience withdrawal.

DESIGNER DRUGS

Designer drugs are lab-made versions of illegal drugs. By altering the chemical make up of drugs, chemists were able to produce new drugs that were different enough from controlled substances, yet able to produce many of the same effects. However, the Controlled Substance Analog Act of 1986 made all designer drugs on the streets illegal, as well as banning any variations on controlled substances. Narcotics, amphetamines, and hallucinogenics are the common models for designer drugs.

For designer narcotic drugs, the effects and risks that users face are even greater than the narcotics. Instability and toxicity of the base chemicals and the lack of skill in processing are the major problems. Fentanyl is a type of narcotic that looks and acts like heroin. This is commonly called “China White”

and is reported to be 100 times stronger than morphine. It produces almost the same effects, yet lasts only 1-2 hours. Designer drug variants of Fentanyl are much stronger (Sufentanyl is over 2,000 times stronger than morphine). The potency of these designer drugs puts users at extreme risk of overdose or death.

ACQUIRED IMMUNO-DEFICIENCY SYNDROME (AIDS)

Users not only risk the adverse effects of the drugs, they are also putting themselves at risk of getting the virus that causes AIDS (HIV). The user who is sharing needles and syringes may be sharing with an HIV-infected person.

A sizable percentage (estimated at 25%) of the people who are HIV-positive got the virus through sharing needles. This is most relevant to narcotics because the favorite method of taking a narcotic drug like heroin is to shoot it. Also, the majority of the people who shoot heroin share their needles.

PROBLEMS FACING THE ARMY

While the use of heroin and other narcotics is not a problem at every Army installation, it tends to be a significant problem at those installations where the surrounding civilian community has a narcotics problem.

SOME SUGGESTED STRATEGIES

Some soldiers who have had little contact with narcotics may find them glamorous — the ultimate “forbidden” drug, the excitement of “shooting up”, etc. To counteract this, the “uncool” side of narcotic drug use can be emphasized — the “bad batch” potential of designer drugs and the designer drugs masquerading as narcotics (China White). There

TEST QUESTIONS

1. Heroin is usually taken by:

a. Skin popping
b. Mainlining
c. Sniffing
d. All of the above*

2. Addicts commonly report hepatitis, tetanus, heart and lung abnormalities, scarred veins (tracks marks), skin infections, ulcers, and abscesses. Serum hepatitis is also considered an indicator of heroin use.

True* or False

3. Methadone is a form of synthetic heroin and is nonaddicting.

True or *False

4. Babies born to heroin-addicted mothers are not born physically addicted.

True or *False

5. Many physiological problems experienced by narcotics users have to do with the circumstances of illicit use, such as shared needles.

*True or False

6 SUPPLEMENTAL LESSONS - Opiate Narcotics HANDOUTS

Chronology of Heroin here

DEPRESSANTS

Depressants are drugs that depress the central nervous system. There are over a hundred drugs that fall into this category. This lesson will focus on two classes of depressants (benzodiazepines and barbiturates), and two individual drugs (methaqualone and prozac) that have been abused or, in the case of prozac, have the potential for abuse.

BENZODIAZEPINES

There are numerous benzodiazepines on the market, the most popular of which are:

- **Long Acting**
  - Valium
  - Librium
  - Tranxene
  - Klonopin
  - Centrax
- **Short Acting**
  - Ativan
  - Serax
  - Xanax

The benzodiazepines are used primarily to reduce anxiety and tension. They first became available in this country in the early 1960s. They replaced barbiturates and meprobamate for treating anxiety and represented a major medical advance. Unlike barbiturates and meprobamate, they do not have the potential for organ and tissue damage that previous drugs had.

Most Americans are introduced to these drugs by physicians, and most use them according to prescription. Problems are created, however, because many people do not stay within the physician's guidelines.

Characteristics of Benzodiazepines

Benzodiazepines are mainly prescribed for the treatment of tension, insomnia, behavioral excitement, and anxiety. Some are used in treating convulsive disorders, lower back pain, the withdrawal symptoms of barbiturate-alcohol dependence, and the anxiety and panic that sometimes result from the use of hallucinogenic drugs. Some benzodiazepines are also effective muscle relaxants. Most are usually taken orally as tablets, capsules, or liquids.

Effects of Benzodiazepines

The effects of these drugs depend on the dose, the experience of the user, and the circumstances of use. With the normal therapeutic dose, an individual usually experiences a lessening of anxiety, tension, and agitation. These are not unlike the effects associated with drinking alcohol socially.

As the dosage is increased, the individual usually feels more sedated and may have a sensation of floating. Many people also experience some depression of muscular activity, as well as mental confusion and physical unsteadiness.

High doses may produce drowsiness, loss of muscle coordination, lethargy, disorientation, low blood pressure, confusion, memory impairment, rage reactions, personality alterations, and symptoms resembling drunkenness. The ability to drive a car or operate machinery may become impaired. Other

side effects may include skin rashes, nausea, loss of sex drive, and menstrual and ovulatory irregularities.

When benzodiazepines are combined with other central nervous system depressants, such as alcohol or antihistamines, driving may become particularly hazardous. The effects are synergistic when benzodiazepines and other depressants are taken together.

Physical dependence has been reported with sustained use of large doses. Withdrawal may involve anxiety states, apprehension, tremors, insomnia, rapid pulse, fever, loss of appetite, nausea, vomiting, stomach cramps, sweating, fainting, and uncontrolled urination and defecation.

Benzodiazepines are medicines with side effects and potentially lethal complications. If you are prescribed benzodiazepines, it is important to keep the dose low and to stop as quickly as possible.

BARBITURATES

Barbiturates belong to the sedative hypnotic class of drugs.

Characteristics of Barbiturates

Barbiturates are white or yellow powders that are odorless but that have a slightly bitter taste. They are usually packed in capsules and tablets of varying colors, but they are also available as liquids, injectable solutions, and suppositories. In slang terms, they are often referred to by such names as barbs, downers, goofballs, yellow jackets, and red devils.

Barbiturate consumption has been cited in coroners' statistics as the most frequent means of committing suicide and the predominant cause of accidental drug overdose death.

In low doses (25-50 mg), the short- or intermediate-acting compounds, such as amobarbital (Amytal), pentobarbital (Nembutal), secobarbital (Seconal), and butabarbital (Butisol), are used in treating tension and anxiety. In higher doses (100-200 mg), they are used to induce sleep.

Barbiturates are usually taken orally and are readily absorbed by the stomach and small intestine. Absorption into the blood stream can be rapid, especially on an empty stomach. Some effects may occur within 20 minutes.

Effects of Barbiturate Use

Barbiturates enter the blood stream and depress central nervous activity, thereby slowing down many bodily functions, such as breathing and coordination. The short-term effects of barbiturates are similar to those of alcohol. At low doses, barbiturates tend to induce relaxation, a sense of well-being, and drowsiness. By reducing inhibitions, such doses may make a person seem more sociable, jovial, and impulsive. At higher doses, the drug reduces the individual's ability to react quickly and to perform skilled, precise tasks. The person often feels sedated, and alternates between feelings of euphoria on the one hand and hostility and aggressiveness on the other. At still higher doses, the symptoms may be similar to those of drunkenness, and involve confusion and difficulty in communicating. The person may fall into a stupor or sleep. If

high enough, the dose may impair the respiratory functions so severely that he or she stops breathing and dies.

Used repeatedly over a long period of time, barbiturates can induce tolerance and physical and psychological dependence in the user. Tolerance is said to develop when a user has to take larger and larger amounts of the drug to achieve the same effect. As tolerance develops, the risk to the user increases. Physical dependence occurs when the user cannot stop using the drug without suffering withdrawal symptoms.

Withdrawal may be characterized by physical weakness, dizziness, anxiety, tremors, hyperactivity, sleeplessness, nausea, abdominal cramps, and vomiting. Between the third and seventh day following withdrawal, the user may experience delirium, delusions, and hallucinations. Other symptoms may last for days or even months. In extreme cases, the barbiturate or alcohol-type withdrawal is considerably more painful and dangerous than is withdrawal from opiate narcotics, such as heroin. Babies born to mothers who are physically dependent on barbiturates have been seen to develop physical dependence and withdrawal symptoms of their own.

Barbiturates are sometimes used in conjunction with stimulants. Amphetamine users sometimes use barbiturates to “come down” after a

prolonged period of amphetamine use (a speed run). This combination of taking an “Up” and a “Down” is very dangerous physically and psychologically. Even more dangerous is combining barbiturates with other depressants like narcotics, benzodiazepines, or alcohol. This combination of two “Downers” is very synergistic and dramatically increases the potential for overdoses.

METHAQUALONE

Methaqualone is a nonbarbiturate sedative hypnotic that is no longer used medically, but can still be found on the streets where it is known as sopors, sopes, and ludes.

Methaqualone was introduced to the American medical market in the mid 1960s for the treatment of insomnia and anxiety. In 1973, methaqualone was withdrawn from legal use in the United States and classified as a Schedule 1 Drug. Its reputation as a “love drug” contributed to the rise in use despite its being illegal. Methaqualone use peaked in the late 1970s and early 1980s when dealers were smuggling over 100 tons a year into this country. Since that time, its use has declined and often “ludes” sold today on the street are not methaqualone but Valium in disguise, at 2-3 times their regular price.

Basically, intoxication with methaqualone is similar to intoxication with barbiturates or alcohol, and subjects the individual to the same risks: death by overdose, accidents due to confusion, and impaired motor coordination.

Methaqualone has been known to induce headaches, hangover, fatigue, dizziness, drowsiness, lethargy, menstrual disturbance, dry mouth, nosebleeds, diarrhea, skin eruptions, lack of appetite, numbness, and pain in the extremities. Coma and death have been known to occur with extremely large doses.

TEST QUESTIONS

1. Which of the following is a potential danger when a user combines a benzodiazepine with another depressant?

a. Decreased motor coordination resulting in an accident
b. Sleepiness
c. Overdose
d. All of the above *

2. Which of the following classes of drugs is the predominant cause of accidental drug overdose death?

a. Benzodiazepines
b. Methamphetamines
c. Barbiturates *
d. Psychomagnetics

3. When a user buys methaqalone (ludes) on the street, often what they're really getting is .

a. Heroin
b. Valium *
c. LSD
d. Caffeine

4. Many people today are concerned about what possible side effect of taking Prozac?

a. Sleepiness
b. Violence
c. Sexual dysfunction *
d. Hearing colors

5. With barbiturates use there is potential for...

a. Physical addiction
b. Psychological addiction
c. Tolerance
d. All of the above *

HALLUCINOGENS

Hallucinogens, also called psychedelics, are "mind altering" drugs that gained notoriety in the 1960s. The prototype of these hallucinogens was LSD, which was advocated as a means of "turning on, tuning in, and dropping out" of existing social institutions. A range of other chemicals, such as DMT, STP, MDA, and PCP, then came into use among large population subgroups seeking new experiences. This lesson describes the general characteristics of hallucinogens, the general effects of hallucinogen use, and the properties of mescaline, psilocybin, phencyclidine (PCP), and lysergic acid diethylamide (LSD).

CHARACTERISTICS

Hallucinogens are capable of distorting time and space perceptions and of altering one's self-awareness and sense of body image. Hallucinogens also induce hyper-sensitivity to texture and shape, and ability to sense sound and taste. As suggested by their name, these drugs can also induce hallucinations.

Many natural and synthetic hallucinogens are in use today. LSD is the most potent and best-researched synthetic hallucinogen. Naturally occurring hallucinogens include mescaline (extracted from the peyote cactus, although it can also be produced synthetically), psilocybin (found in certain Mexican mushrooms), morning glory seeds, nutmeg, and Jimson weed.

EFFECTS OF HALLUCINOGENS - GENERAL

The psychological effects of hallucinogens are not readily predictable because they are often influenced by the personality of the user, the expectations of use, the user's state of mind,

and the user's environment. Generally, low doses of hallucinogens produce mood and perceptual distortions rather than hallucinations, which occur more frequently with higher doses.

Depending on dose, the duration of the major effects of mescaline, MDA, STP, and PCP may be comparable to those of LSD.

The use of some hallucinogens has resulted in tolerance. A frequent effect is cross tolerance, meaning that a user who becomes less sensitive to one drug will not react so intensely to a similar drug.

The use of hallucinogens has been linked to a variety of negative effects, including the following:

- Panic
- Paranoia
- Trauma
- Flashbacks
- Adjustment problems
- Long-term personality changes
- Neuroses
- Dementia

EFFECTS OF SPECIFIC HALLUCINOGENS

The accompanying fact sheet provides basic information about mescaline, psilocybin, phencyclidine (PCP), and lysergic acid diethylamide (LSD), all of which are addressed below. The accompanying table on effects summarizes some of the possible consequences of hallucinogen use, which range from fever and vomiting to convulsions and death.

Mescaline

Mescaline is derived from the dried, chopped-up heads of the peyote cactus. Sometimes this product is distributed in capsule form. Peyote disks can be eaten and made into tea, as well as ground and smoked. Synthetic mescaline is found as a powder and is kept in capsules or tablets. Rarely is mescaline injected.

The mescaline high involves euphoria, heightened perception — a dream-like state sometimes with hallucinations or synesthesia ("hearing" colors, "seeing" music). Mescaline may also induce fever, vomiting, headache, low blood pressure, and depressed heart and respiratory activity. The effects of mescaline appear slowly and can last up to 18 hours.

Psilocybin

Psilocybin, which is chemically related to LSD and DMT, is found in a wide range of Mexican mushrooms. It may also appear as a mushroom preparation or as dried brown mushrooms. It may be eaten in its mushroom state or be reduced to a white crystalline powder that can be smoked or ingested.

The effects of psilocybin usually do not last as long as those of LSD, but they are otherwise similar. Psilocybin use may induce:

- Yawning
- Shivering
- Lethargy
- Feelings of detachment
- Dizziness
- Intoxication
- Abdominal pains
- Nausea
- Anxiety

- Inability to concentrate

Phencyclidine (PCP)

PCP has anesthetic qualities. Because of this, it was used as an animal tranquilizer for a time until its unpredictability of effects caused it to be replaced by other drugs. This drug is now only used illicitly as a hallucinogen. A crystalline powder soluble in water, PCP may be smoked, injected, taken as a liquid, taken in tablets or capsules, and used in combinations with other drugs. Marijuana or mint leaves may, for example, be soaked in a PCP solution, or the PCP may be dusted on marijuana or tobacco.

The effects can be comparable to those of LSD. Delusion, violent behavior, and mental confusion are common. Large amounts of PCP can cause flashbacks, convulsions, and coma. Deaths have been attributed to PCP.

Lysergic Acid Diethylamide (LSD)

LSD is a semisynthetic derivative of lysergic acid, an alkaloid produced by a parasitic fungus or rust sometimes found on rye or other grains. Dosage amounts are very small compared to other drugs (average = 125 to 150 millionths of a gram). This microscopic amount can be added to anything digestible including sugar cubes, gels, and blotter paper.

LSD is capable of producing profound effects on the user’s intellectual and emotional processes. It is known to distort time and space perception and to induce hallucinations.

The most commonly noted physical reactions are increases in heart rate, blood pressure, and temperature, as well as nausea. LSD may also induce tremors and cause hyperventilation. A few cases of convulsions have been reported.

LSD experiences might amplify existing neuroses or character disorders. Hallucinations sometimes produce anxiety or paranoia that may convince the novice user that he or she is going insane and may bring on severe panic/ trauma. Flashbacks — recurrence of traumatic experiences — have been reported over periods ranging from a few months to years after the last LSD use.

Tolerance to the psychological and physiologic effects of LSD develops rapidly on repeated use, but it also dissipates quickly when use is stopped. Physical dependence does not develop with LSD, but psychological dependence has been reported. Certain individuals become so preoccupied with LSD that they feel dissatisfied and depressed without access to the drug.

MAJOR PROBLEMS FOR SOLDIERS

Soldiers often see hallucinogens like LSD as different or exciting. They may be prodded or dared into taking it by their peers. Many still believe that hallucinogens, especially LSD, cannot be tested for in urinalysis. They hear it described by educators and it does not sound bad. They won’t die; they will be nauseous at the beginning, but then they will have these exciting distortions and hallucinations.

To dissuade soldiers from using or experimenting with hallucinogens, make the following points in your presentations.

- The Army can, and does test for hallucinogens. Hallucinogens have been tested for in urinalysis since 1989 and more are tested each year.

- On the average, one of every three times an individual takes hallucinogens, he has a “bad trip.” The chances of having a bad trip are further increased if the soldier:

  - Is in unfamiliar surroundings

  - Is having a bad day already

  - Does not feel safe

  - Is with people he/she feels uncomfortable with

  - Has to function or do a specific task (e.g. drive a car)

  - Is feeling angry, sad, or depressed

- This “different” high is too different, and can produce extreme trauma. The symptoms of a “bad trip” are very similar to symptoms one exhibits when having a “nervous breakdown.”

  - Feeling out of control

  - Feeling confused

  - Not knowing or understanding things one normally would

  - Having difficulty separating fantasy/ imagination from reality

The feeling for many is like “you’re losing your mind.” This, for most people, is highly

TEST QUESTIONS

1. Hallucinogens are also called:

   a. Psychedelics*
   b. Uppers
   c. Downers
   d. Speedballs

2. Hallucinogens can cause extreme trauma which in turn can cause flashbacks to the traumatic experience even years afterwards.

   True* or False

3. The psychological effects of hallucinogens are very predictable.

   True or False*

4. PCP can cause

a. Delirium
b. Agitation
c. Alcohol-like inebriation
d. All of the above*

5. You cannot develop a physical dependence to LSD, but a psychological dependence has been reported.

   True* or False

STEROIDS

Every athlete, whatever the sport, wants to win. Recent, well-publicized deaths of outstanding athletes from cocaine or alcohol-related causes have many people aware that using so-called “recreational drugs” is incompatible with being a winner, and can be fatal.

STEROID ABUSE

But another less publicized type of drug abuse with equally serious consequences is on the rise. Ironically, these drugs are not taken for kicks, and those abusing these drugs do not think of themselves as drug abusers. They use them because they believe “everyone is doing it,” to keep up with the competition, to give themselves a competitive edge, or to avoid giving other competitors that competitive edge. Too often, these drugs are used with the encouragement of teammates, or even coaches.

Concern is increasing in the Army and the civilian world that steroids may become one of the most abused drugs in the 1990s. This lesson is offered to provide understanding of this potential substance abuse problem.

CHARACTERISTICS OF STEROIDS

Anabolic steroids, the focus of this presentation, are the most widely abused type of steroid. These steroids are the synthetic

form of the male hormone testosterone. The original purpose of these artificial substances, developed in the 1930s, was to help men with inadequate amounts of the natural hormone responsible for the development of masculine characteristics emerging at puberty, including the growth of body hair and lowering of the voice.

Three major concerns are associated with increased use of steroids:

1. More than 1 million Americans take steroids, and the number is rising rapidly.

2. Ninety percent are buying and using them illegally, without a doctor's prescription.

3. Many using steroids illegally take them in very dangerous dosages with serious, potentially irreversible repercussions.

Steroids are used to treat many illnesses. Some common uses are: to treat patients recovering from chemotherapy, asthma, arthritis, lack of growth hormone, and inflamed injuries.

Illegal users of steroids may engage in a practice called stacking. This is the use of several different types of steroids to maximize their effectiveness while minimizing the negative side effects.

Steroid stacking is a common procedure among users. A 1987 health club study determined that three quarters of the athletes using

steroids stacked them. In addition, the study found that these athletes had been using steroids for an average of 3.5 years.

Steroids may be taken orally or by injection. Users may follow patterns of use called stacking or cycling. Cycling involves taking different steroids in sequence to achieve certain effects in preparation for a particular event.

To achieve the quick and dramatic effects steroids can bring, people are illegally buying and taking these substances, using them without a doctor's prescription and supervision, not using them in sets (which provide periods of rest for the body), and stacking them (using more than one at a time). The result is that users are getting from 10 to 100 times the medically prescribed dose. These megadoses are what is causing such extensive damage, both physically and psychologically.

EFFECTS OF STEROID ABUSE

Physical side effects can include severe acne, breast development in males, high blood pressure, heart and liver disease and can affect the reproductive system.

Steroids not only build up muscles, but they also build up sludge inside the arteries, thereby bringing on arteriosclerosis, or hardening of the arteries. Arteriosclerosis, in turn, increases the possibility of strokes and heart attacks.

A person cannot overload the body with an artificial hormone and expect balance to be maintained. In fact, it is not. Steroid abuse, because of the hormonal imbalance it creates, will make a male more feminine and a female more masculine. The effects on males

include withered testicles, sterility, and impotence. In females, irreversible masculine traits can develop, along with menstrual irregularities, breast shrinkage, and sterility.

Mood swings are a major psychological effect of steroid abuse. Physiologically, various steroids tend to change the excitability of neurotransmitters. As a result, they pack a powerful mental punch causing extreme mood swings.

Encourage discussion about why some athletes risk everything by taking steroids.

The most common psychological effect of steroid abuse, however, is aggressive behavior and anger. Focusing on the prevalence of this anger, a health club study found that more than 90 percent of the athletes who used steroids confessed to episodes of over-aggressiveness and violent behavior. This behavior may range from smashed-in lockers to smashed-in competitors or friends! This rage is triggered easily, and it is unpredictable.

Steroids have yet to be classified as physically or psychologically addicting. It has been determined, however, that they cause habituation (once a person gets in the habit of taking them, it is hard to stop), primarily because of the unusual physical effect of long muscle bulk.

While physical deterioration and diseases are the most common ways to die from steroid abuse, a significant number of people die suddenly from overdoses. The overdose is usually caused by anaphylactic shock (an allergic reaction) or septic shock (similar to blood poisoning or bacterial infections).

REASONS FOR STEROID ABUSE

The reasons for steroid abuse are many. One of the primary causes is that steroid use seems to cause euphoria, along with heightened self-esteem. Steroids are also used to heighten

athletic performance. The heightened self-esteem is close to the visible muscle bulk produced by the steroids.

Taking drugs to get the edge on the competition has been going on for a long time. In the 1950s, steroid use by athletes was encouraged by many countries, including the United States and Russia. By the 1960s, many people were becoming concerned about the negative side effects of steroids and other drugs. As a result of this concern, urinalysis was initiated. By the 1970s, the chemical augmentation of performance was discouraged. A number of disqualifications from participation occurred in the 1980s because of steroid use, as a few examples show. In 1983, 19 athletes were disqualified from the Pan American Games for urine positives including steroids. In 1984, 11 athletes were disqualified from the Olympics for steroid abuse. More than 20 athletes, including Ben Johnson, were disqualified either before or during the 1988 Olympics for steroid abuse.

With the increasing competitiveness of sports, the type of athlete who uses steroids has expanded from the international athlete all the way to the high school athlete (more than 2 percent of all high school students have already used steroids).

Another reason that many people take steroids is to improve their appearance. Potential users in this category need to remember, however, that steroids actually diminish one's looks, producing effects that include:

- Puffy face
- Acne
- Jaundice
- Swelling of the feet and legs

- Trembling
- Darkening of the skin

In addition, young steroid users or people who are not fully grown, can close off the growth line of long bones. The soft tissue on the bones hardens, allowing no more growth.

CONTROLLING STEROID ABUSE

Legislation Controlling Steroid Abuse

Both Federal and State governments have enacted laws and regulations to control anabolic steroid abuse. In 1988, Congress passed the Anti-Drug Abuse Act, making the distribution or possession of anabolic steroids for nonmedical reasons a federal offense. Distribution to minors is a prison offense.

In 1990, Congress strengthened the laws, passing legislation that classifies anabolic steroids as a controlled substance. Anabolic steroids are now assigned to Schedule III of the Controlled Substances Act, as of February 27, 1991. To halt diversion of anabolic steroids onto the black market, the law imposes strict production and record keeping regulations on pharmaceutical firms.

More than 25 states have passed laws and regulations to control steroid abuse, and many others are considering similar legislation. Like a number of other States (e.g., California and Ohio), Hawaii now has a statute covering the illegal possession of anabolic steroids (329-45, Al). Possession is punishable as a misdemeanor with a maximum penalty of 1 year and/or a $2,000 fine. Distribution can be punished as a felony.

Army Policy on Steroids

The Army has just recently begun to deal with the problem of steroid abuse, although it has

TEST QUESTIONS

1. Most steroid users:

   a. Buy from illegal sources
   b. Don't follow doctor's recommended dosages
   c. Believe steroids will give them a "competitive edge"
   d. All of the above*
   e. None of the above

2. Steroids are a synthetic form of the female hormone Estrogen.

   True or False *

3. The most common symptom of steroid abuse is:

   a. Bloodshot eyes
   b. Listless behavior
   c. Coughing
   d. Anger*

4. Steroids may cause an individual physical and psychological problems, but they will not kill the person.

   True or False *

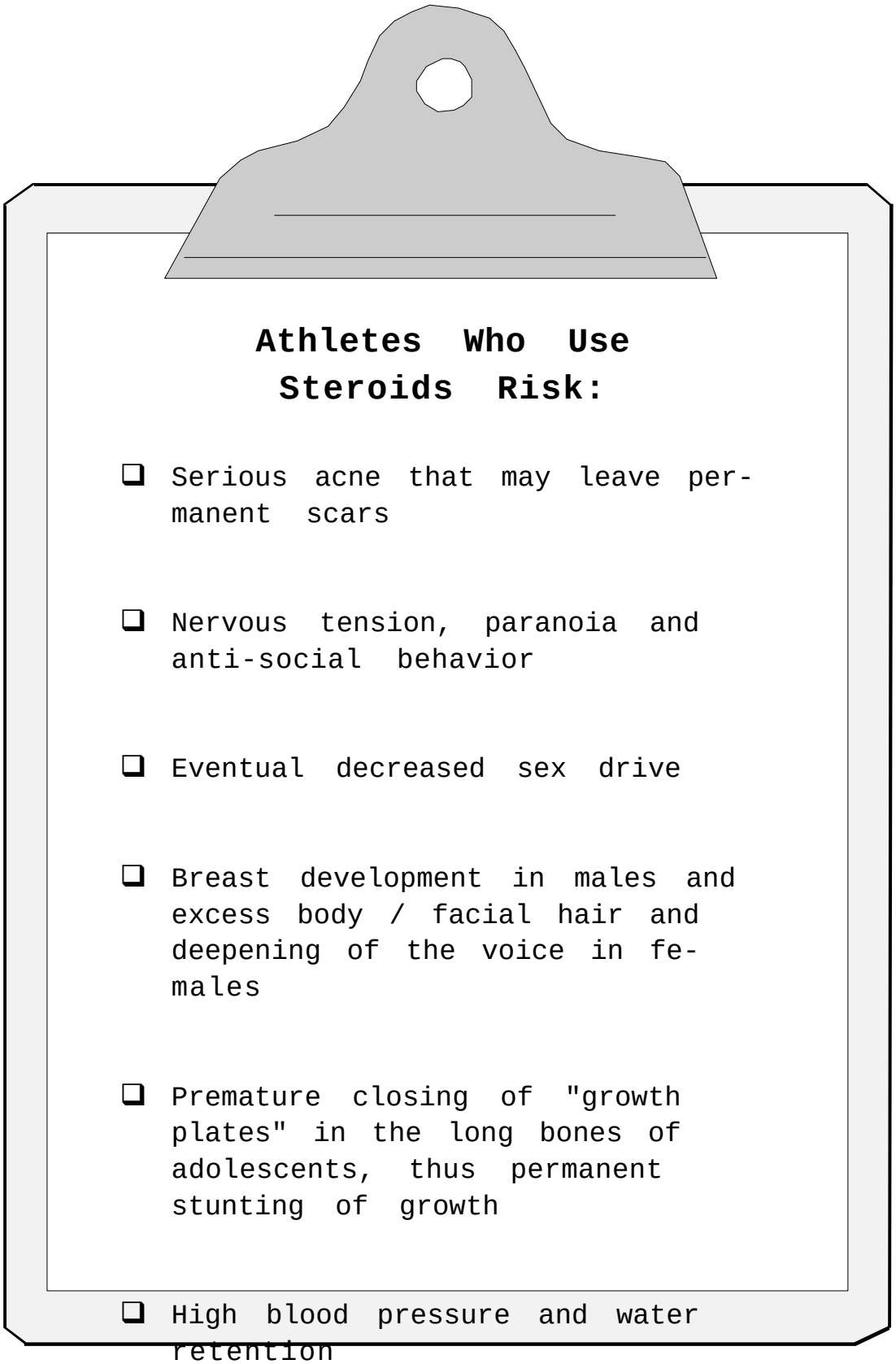
5. Army policy concerning steroids:

   a. Supports their use
   b. Is that use is only acceptable under a doctor's orders and care*
   c Is to leave their use up to the individual
   d. There is no Army policy on steroids

6 SUPPLEMENTAL LESSONS - Steroids HANDOUTS

Insert "STEROIDS
ARE A
CONTROLED
SUBSTANCE"
HERE

Insert Signs of anabolic.....here



Athletes Who Use Steroids Risk:

- Serious acne that may leave permanent scars
- Nervous tension, paranoia and anti-social behavior
- Eventual decreased sex drive
- Breast development in males and excess body / facial hair and deepening of the voice in females
- Premature closing of "growth plates" in the long bones of adolescents, thus permanent stunting of growth
- High blood pressure and water retention